

CHALMERS

UNIVERSITY

OF

**TECHNOLOGY**

AND

**ART**

# Content

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*Welcome to the new Chalmers  
school of technology and art!*

*Here different fields meet in a creative and  
open atmosphere where students, teachers and  
the public share knowledge, spaces and ideas.*

*In this open environment inspiration will flow.*

# Background

This is a proposal for a transformation of the School of Architecture at Chalmers University of Technology. The aim of the project is exploring different ways to open up a school and a field, that is perceived as closed - both mentally and in the built environment. Our thoughts on opening up coincided with the development of a new building for the newly merged faculties of HDK and Valand and the idea of merging this new faculty of Art with the faculty of Architecture and Civil Engineering was born.

We sense a lack of trust in the artistic values in today's architecture that we believe can be partly explained by a movement towards a more technological focused field and education. The merging of the two schools would benefit in many ways. Firstly, the architecture school would get new artistic perspectives and tools for designing. Secondly the dialog between artists, architecture and people in society would widen- through more exhibitions and crossed-disciplinary collaborations. Thirdly, artists would also get new tools of expression and have a bigger impact of the built environment.

These are some of the questions that we have explored during the project:

*What does it take to make people feel included in the processes of Architecture?*

*What qualities are needed to make a building or a place feel welcoming and open?*

*Is there unused space that can be used more efficiently on campus and how will the school be used after corona?*

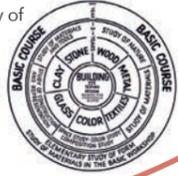
*How have the historical context in society contributed to the development of the architectural education?*

# Process

## Bauhaus study



We made a study of the education of Bauhaus and compared it with our own school of architecture.



## Survey

Survey about merging architecture and art design education

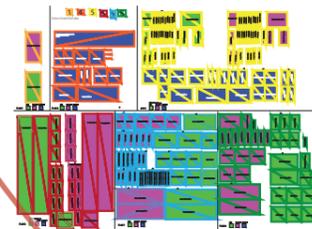


We sent out a survey to student and teacher at Chalmers architecture programme, to HDK and Valand. We wanted to hear their thoughts of moving the new Art school to Chalmers.

We did an interview regarding the survey with Tabita Nilsson, one of the staff in wood workshop at Chalmers.

## Space and functions mapping

The mapping of spaces and functions in order to fit the new school of arts have been done both digitally and with cut-out paper areas.



## Finding out of HDK / Valand new school



The new school of HDK and Valand is an actual ongoing project. The project was set by a competition won by Tham & Videgård arkitekter. The project caught our interest and the idea of moving this new school to Chalmers and using already existing facilities was born.

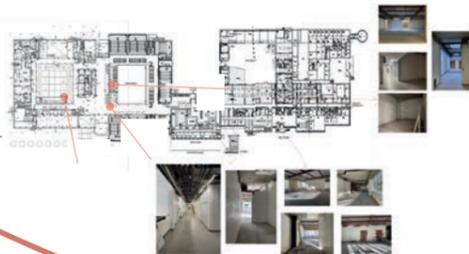
## Activating the slope



We have discussed the idea of activating the slope opposite of the ACE-building by adding a building for exhibitions and a bridge connecting Guldheden and Johanneberg.

## Mapping out the SB3-building

We mapped out the SB3-building which is renovated at the moment and found out about Chalmers newly started TRACKS course programme. The facilities seemed to suit for ateliers and workshops.



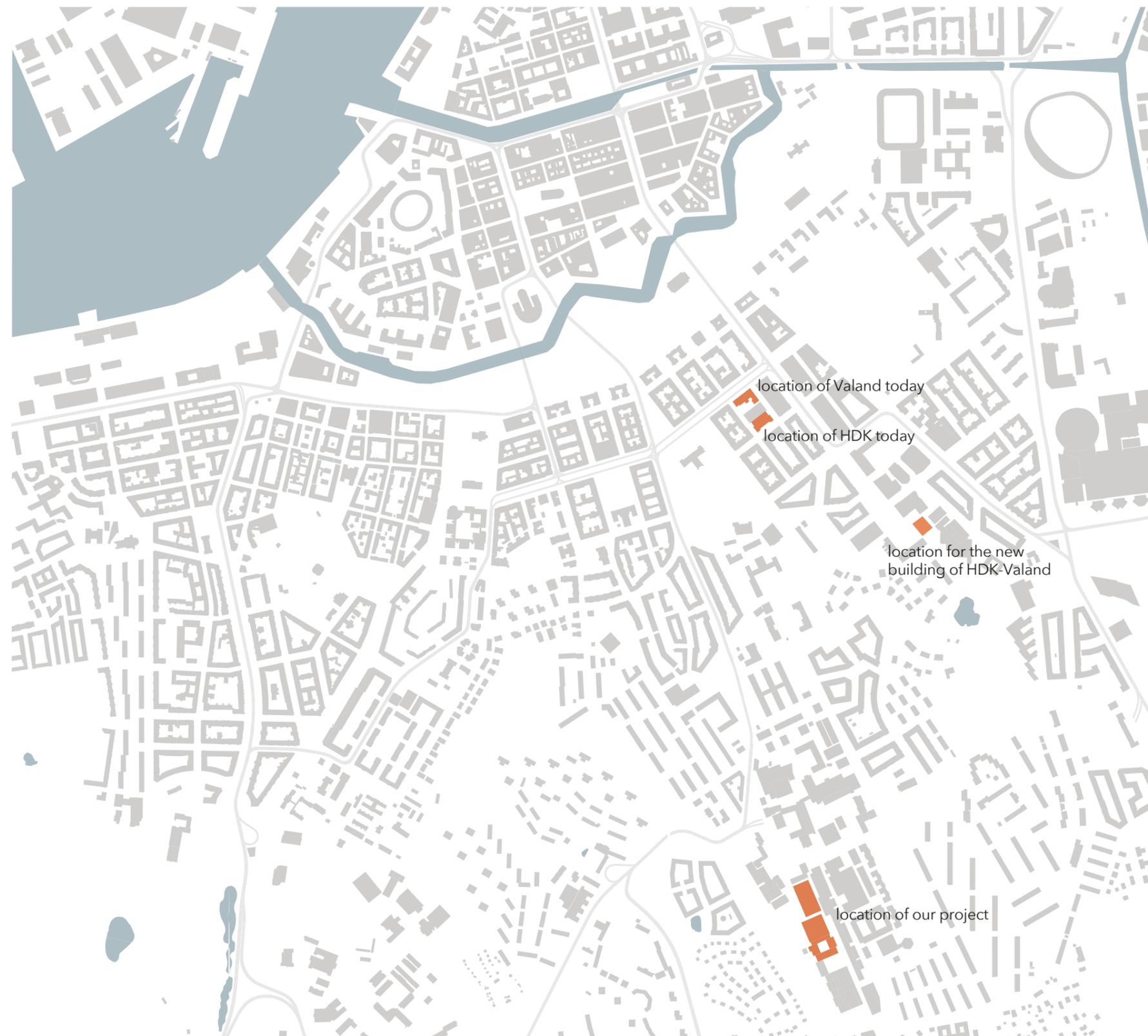
## Clay models



We have made models of clay to get a sense of the outdoor area surrounding the ACE-building.

The development process of our project has not been linear, we moved back and forth to test our ideas. We have used different methods to develop our ideas. For instans, historical research about Bauhaus and social changes related to architecture and Chalmers and a survey and interviews based on our topic. For the design process, we made clay models, collages, mapping of space and functions. During the process we have discussed and reflected continuously.

# Site plan



Here you can see the geographical location of our project (the SB1, SB2 building of architecture faculty in Chalmers and the wave lab of SSPA), the HDK-Valand art school, and the new location of the HDK-Valand. The current location of HDK and Valand situated separately near the "Avenyn" and the centre of Gothenburg. The new location of the merging art school HDK-Valand is at Näckrosdammen.

The buildings of our project situated at Johanneberg campus at Chalmers, where it is slightly separated from the city centre and surrounded by residential areas.

# Analysis



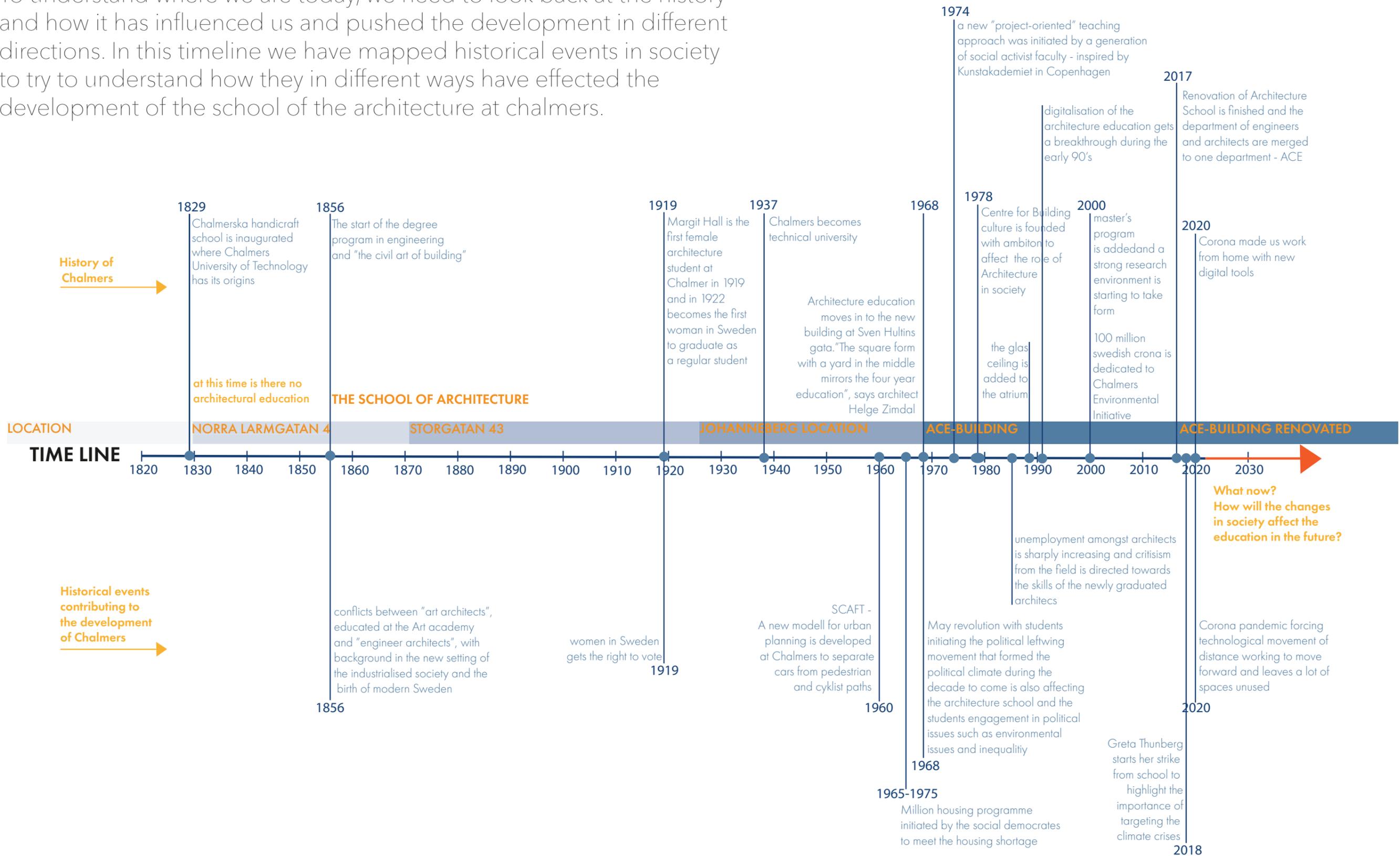
The map shows the flow of people's movement and hotspot in the campus area. The outdoor area of the union building and the Geniknölen are the most popular spots in this area. The outdoor area of the ACE-building is mainly a linear transport area, which has less recreational spaces to sit and stay.



The map shows the barriers near the ACE-building. The green slope to the west, the built structure and geographical barrier behind the ACE-building have blocked the west-east movement in this area, which made the structure linear and less accessible.

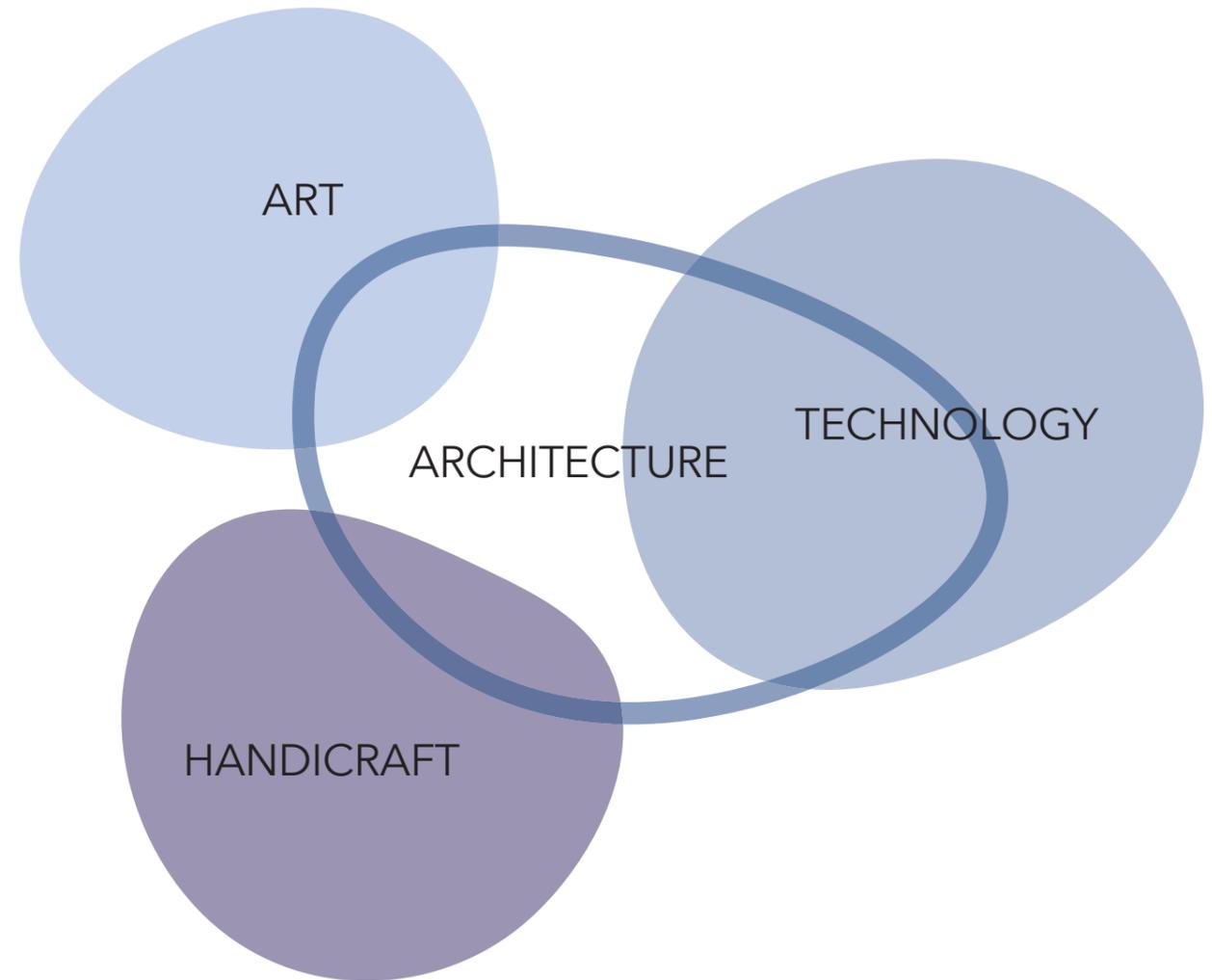
# History and architecture at Chalmers

To understand where we are today, we need to look back at the history and how it has influenced us and pushed the development in different directions. In this timeline we have mapped historical events in society to try to understand how they in different ways have effected the development of the school of the architecture at chalmers.



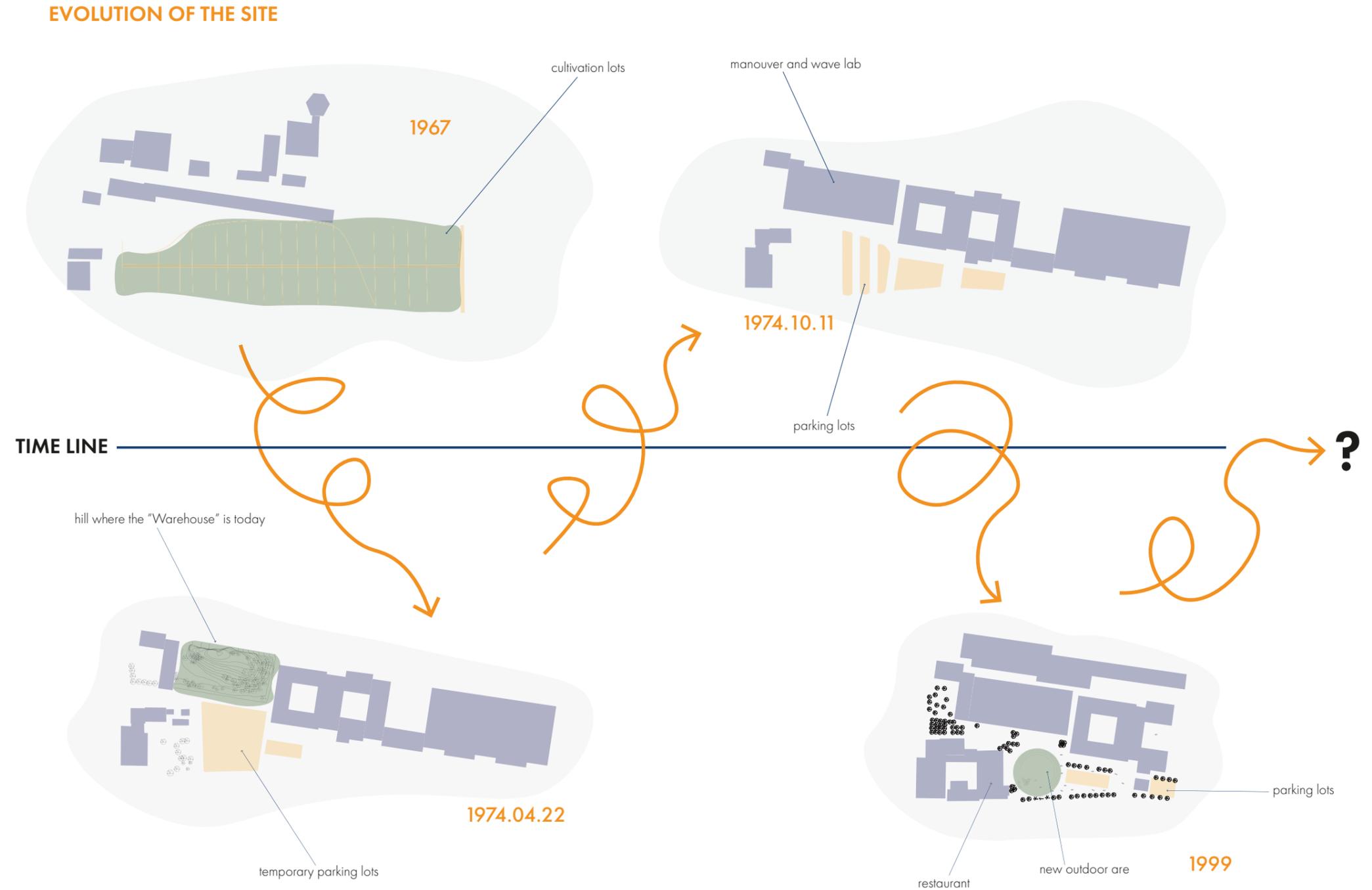
# Conclusion

From the research of the history and architecture at Chalmers we learned that the education of architecture in Chalmers has changed from handicraft-oriented to technical-focused and that the artistic perspective is underestimated. The role of architects has also changed with the development of society. However, today, the group of architects is becoming homogeneous and mentally closed from the public. For whom are we designing? We want to increase the openness of the ACE-building and the architectural education, in order to communicate with the public. By adding the art school to the architecture faculty of Chalmers, we would like to achieve a balance between art, technology and handicraft in the education. With the collaboration between different fields, we would exchange knowledge with each other and get inspiration from each other, so that our work adapt better to future changes and not become obsolescence over time.

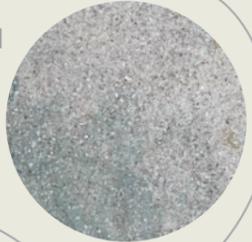
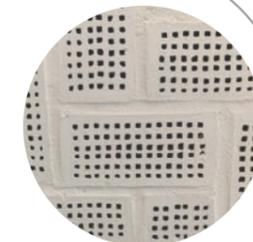
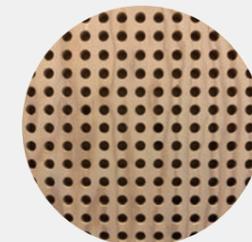
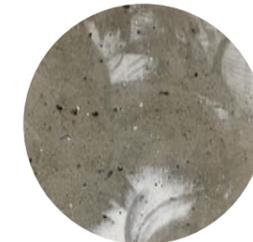
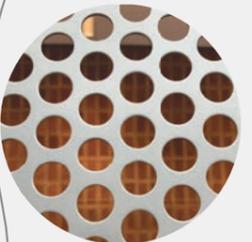


# Historical development of the site

The SBI, II, III buildings of Chalmers were built in 1967, before that the site were cultivation lots. At that time the outdoor area in this site were basically parking lots, until the year 1999, a new lunch hall was built connected to the Union building and the Geniknölen was designed in the outdoor area. The parking lots were moved to the outside the SBII, III buildings. The wave lab of SSPA, which we called the "Wave-house" was built in 1974, and before that, there was a hill with vegetation.



# Material inventory

	materials since the beginning of the building	materials from transformation 2017
<b>floors</b>	<p>The terrazzo floor of Ljussgården is designed by Curt Asker and it is meant to resemble flowing watercolor</p>  <p>terrazzo</p>  <p>nature stone</p>  <p>concrete</p>  <p>coloured glass</p>	
<b>walls</b>	 <p>grey bricks</p>  <p>sound-absorbing bricks</p>  <p>painting bricks</p>  <p>sound-absorbing painted bricks</p>	 <p>plywood</p>  <p>sound-absorbing wood</p> <p>Lasered pinewood was a new addition of material since the transformation in 2017. It is commonly used in the new designs which illustrates what is a new addition.</p>
<b>details</b>	<p>Materials like bricks and concrete have been transformed over the years, over-painted or covered. The concrete walls in the basement, for example, were painted, but during the transformation in 2017 were they reconditioned and the aim was to highlight the actual material.</p>  <p>concrete pillar</p>  <p>reconditioned concrete</p>	 <p>furniture fabric</p>  <p>lasered pinewood</p>  <p>perforated metal for exhibitions</p>

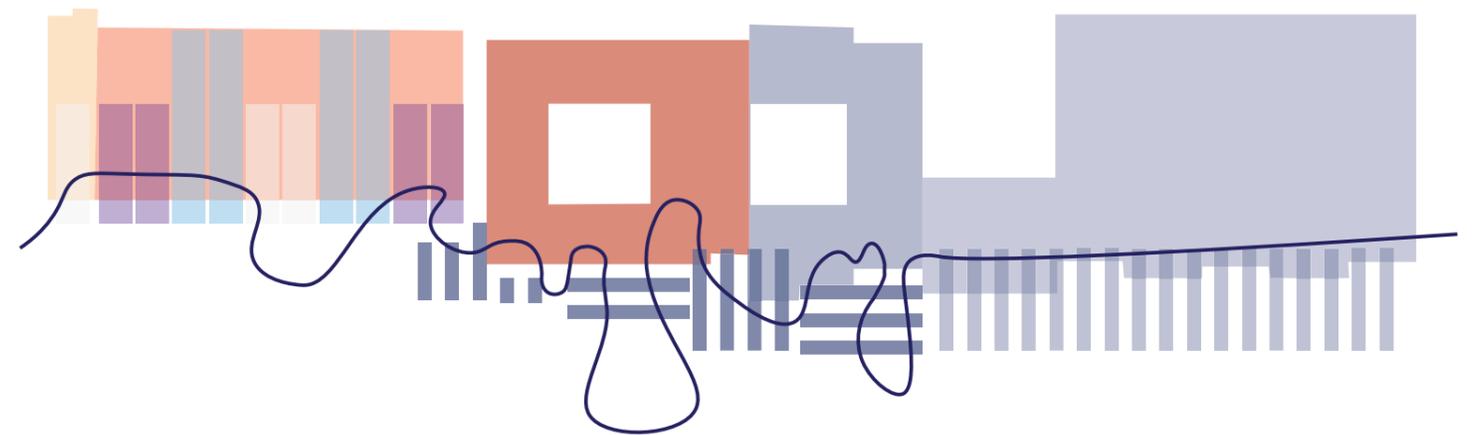
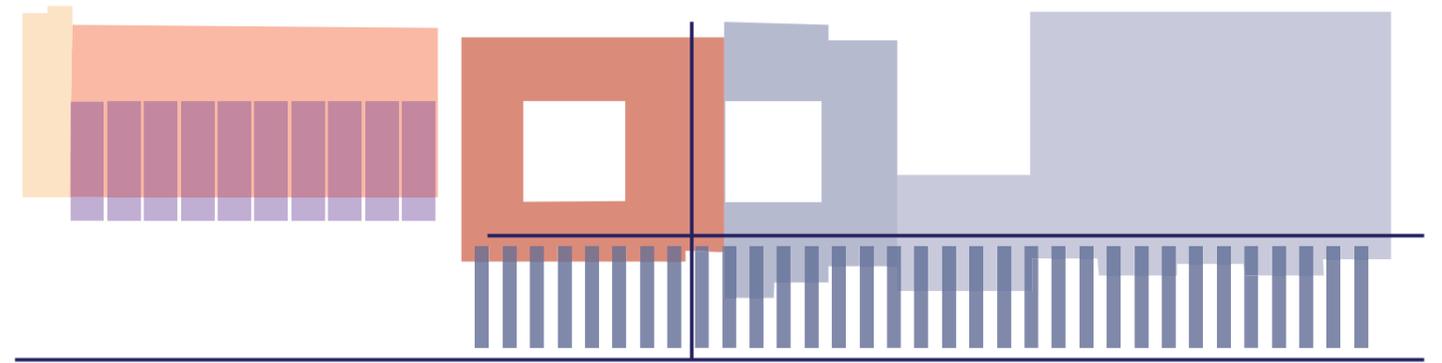
We made an inventory of the existing materials in the ACE-building. We believe it is important to consider these and their historical value in the design of our project. Therefore we have chosen to work with the same palette. Using these materials in the Wave house will also make the impression of the two building more coherent.

# Visions

- Open up the school of architecture by making it more accessible, both mentally and in the built environment
- Have a conscious mindset by using existing spaces and historical values in a sensible way
- Broaden the education by creating possibilities for cross disciplinary collaborations

# Conceptual image

From the analysis, the everyday observation and experience, we found the structure and the movement of the site are linear and lack of recreation space. So we want to break the linear structure, redesign the space both in door and outdoor to interweave the movement, make more recreational spots in the outdoor area where students, teachers, residents around Chalmers can stay, play, communicate and enjoy the sun.



# THE TRANSFORMATION

# Interventions

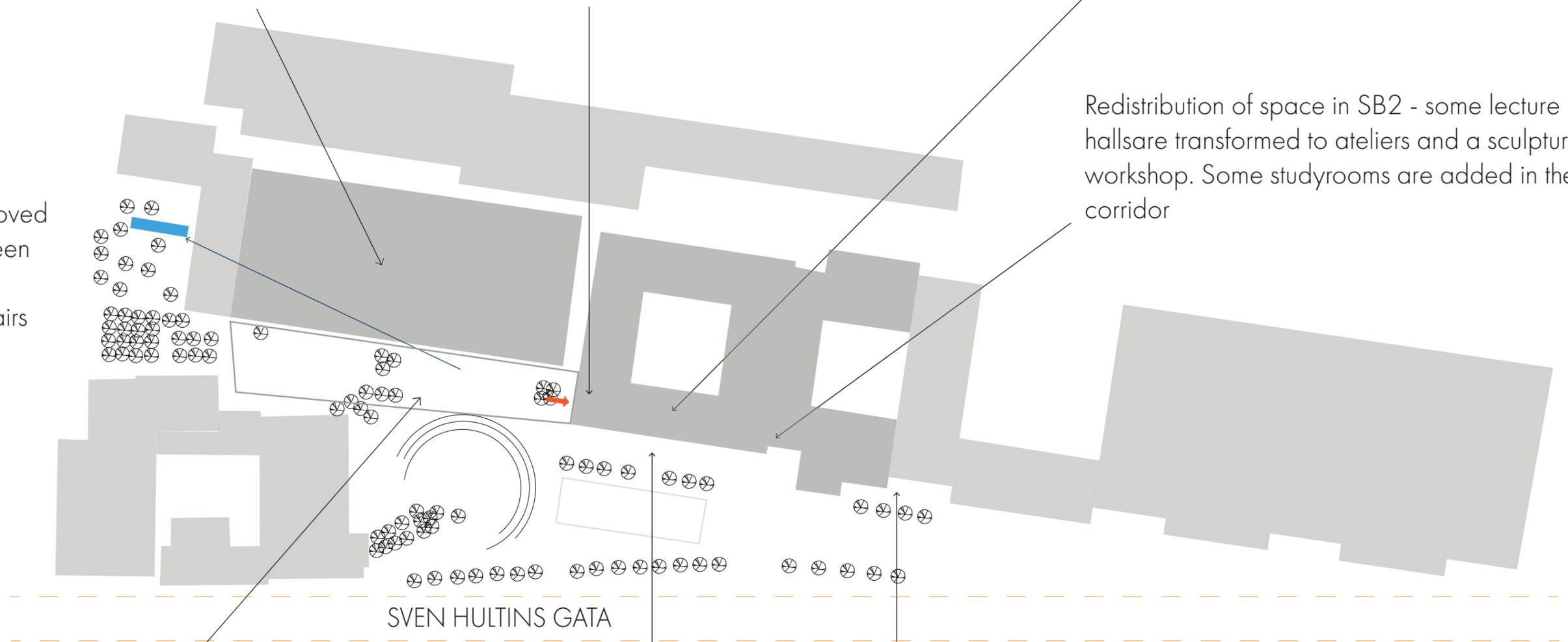
The new school of arts and craft of HDK and Valand is added to campus and SSPA is moved to another site. The building will contain open workspaces, cafe, workshops of different kinds, gallery, public stair for lectures and presentations, a library and smaller studio spaces for the student. Light is added through openings in the facade and from above through roof windows

Tram is moved to the green area by Olga's stairs

A new entrance is added to the north that is more visible when you arrive to the area

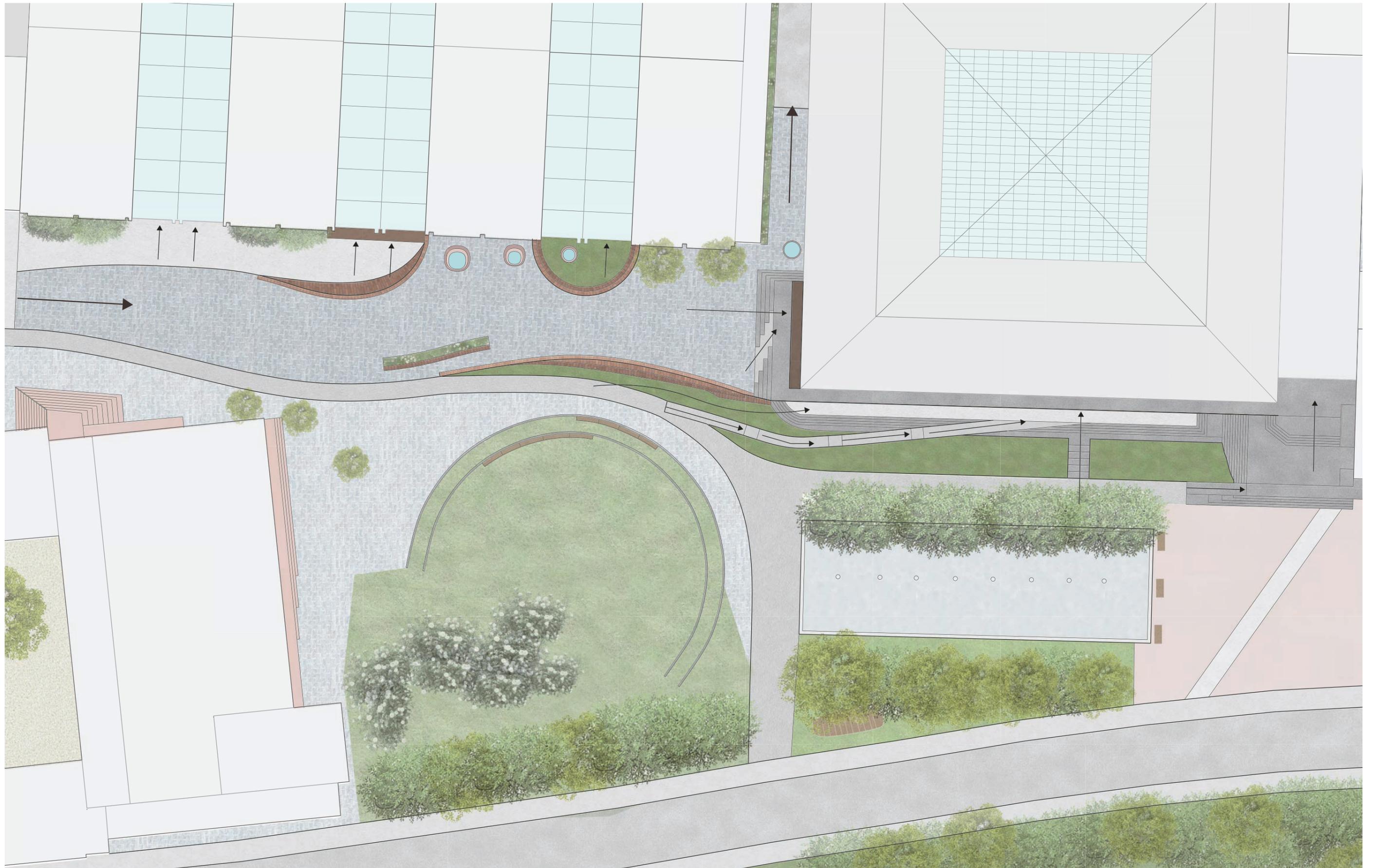
Redistribution of space in SB1 - new functions from the art and crafts school added: digital studios, blackbox, wood, ceramic and plaster workshops

Redistribution of space in SB2 - some lecture halls are transformed to ateliers and a sculpture workshop. Some studyrooms are added in the corridor



Outdoor area in front of the Wave-house is transformed to make the building invitive with outdoor seetings and possibilities for art exhibitions. The ground is ascending to make the entrance smoother

We digg to create a softer entrance from the west and to let more light into the basement floor. On top we add a balcony connected to the library to create more space in the sun to hangout in outdoors

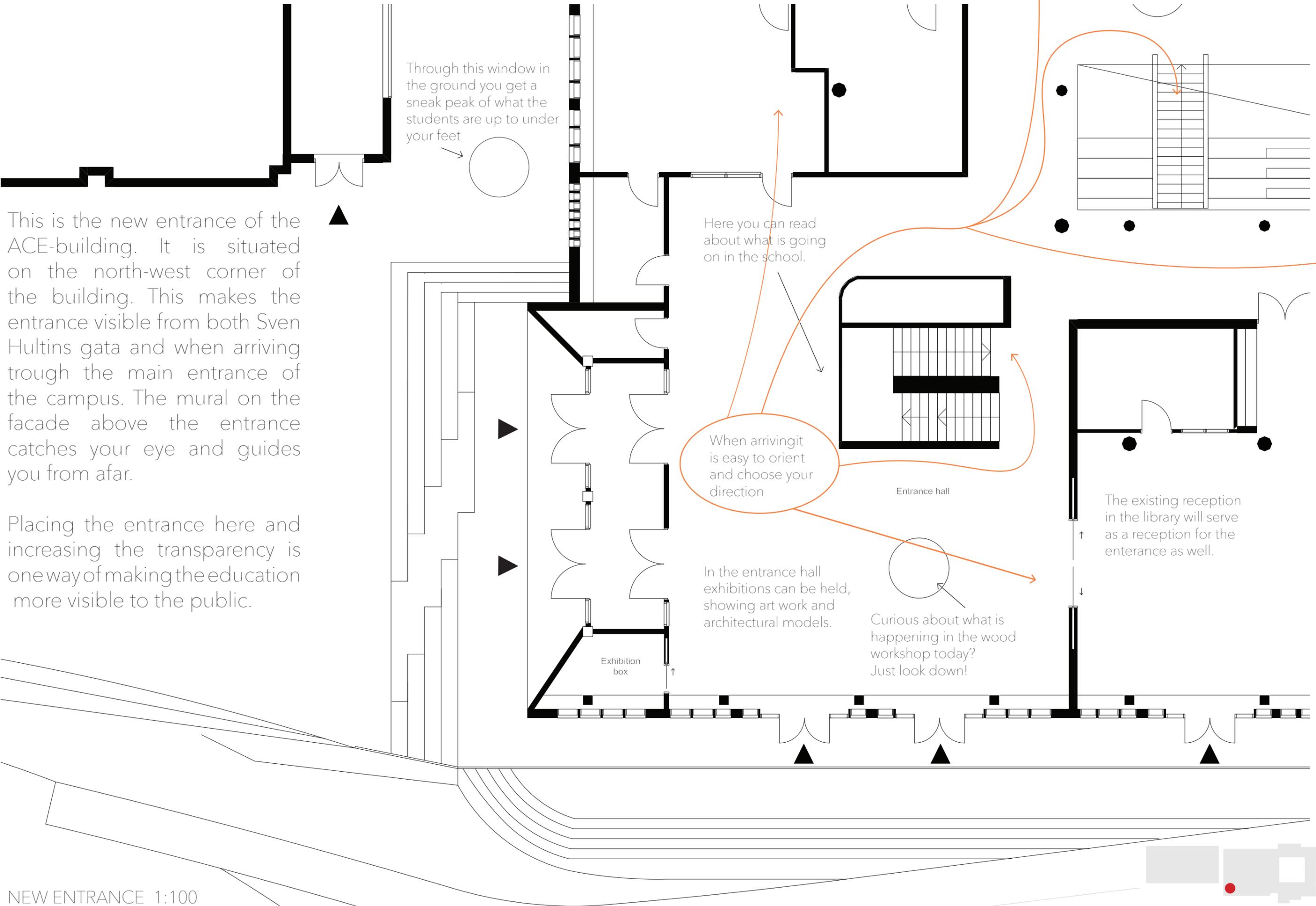


SITE PLAN 1:400

# Site plan

A new entrance is added to the north facade of the SBI- building. As most people are arriving at the site from north, a gentle slope will navigate them naturally to the new entrance. We created squares in front of the entrances of the "Wave-house" -the new art school, to make the space more inviting, and added more spaces hanging out .

An outdoor space with a slope and greenery is added to the west of the SBI-building to let more light into the basement floor. A small entrance to the basement is also added to let the people who working in the basement have a direct connection to fresh air and greenery. People can relax on the slope, have lunch in greenery. On top we add a balcony connected to the library to create more space in the sun to hangout.



This is the new entrance of the ACE-building. It is situated on the north-west corner of the building. This makes the entrance visible from both Sven Hultins gata and when arriving through the main entrance of the campus. The mural on the facade above the entrance catches your eye and guides you from afar.

Placing the entrance here and increasing the transparency is one way of making the education more visible to the public.

Through this window in the ground you get a sneak peak of what the students are up to under your feet

Here you can read about what is going on in the school.

When arriving it is easy to orient and choose your direction

In the entrance hall exhibitions can be held, showing art work and architectural models.

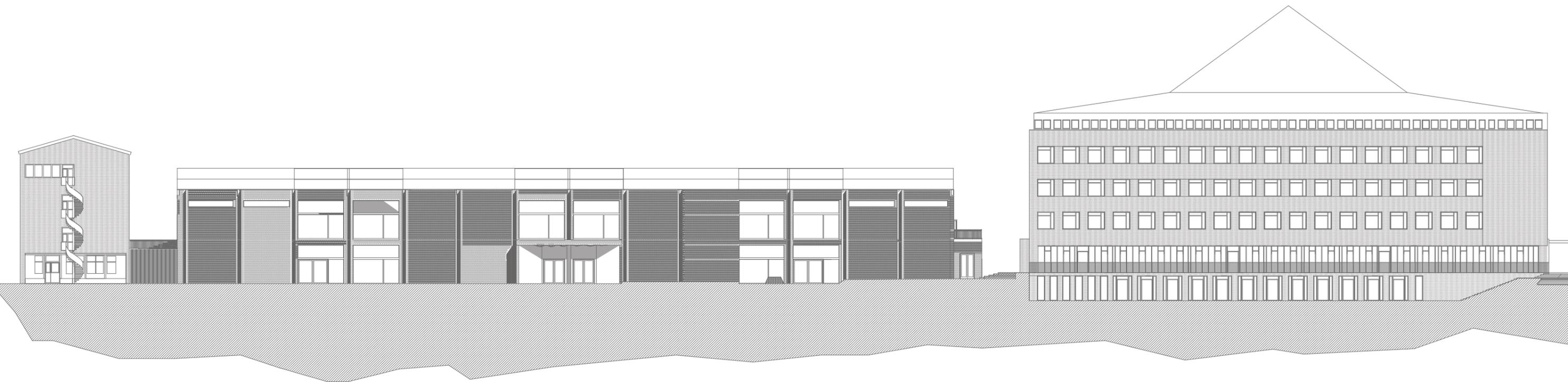
Curious about what is happening in the wood workshop today? Just look down!

The existing reception in the library will serve as a reception for the entrance as well.





# Facade

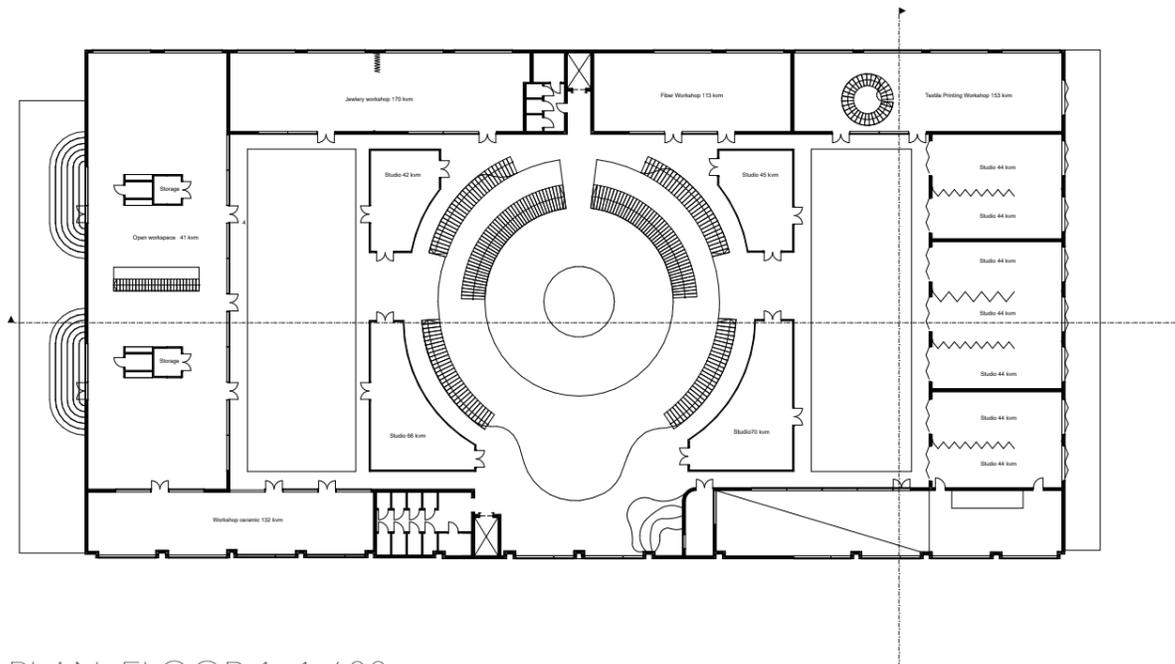


FACADE WEST 1:400

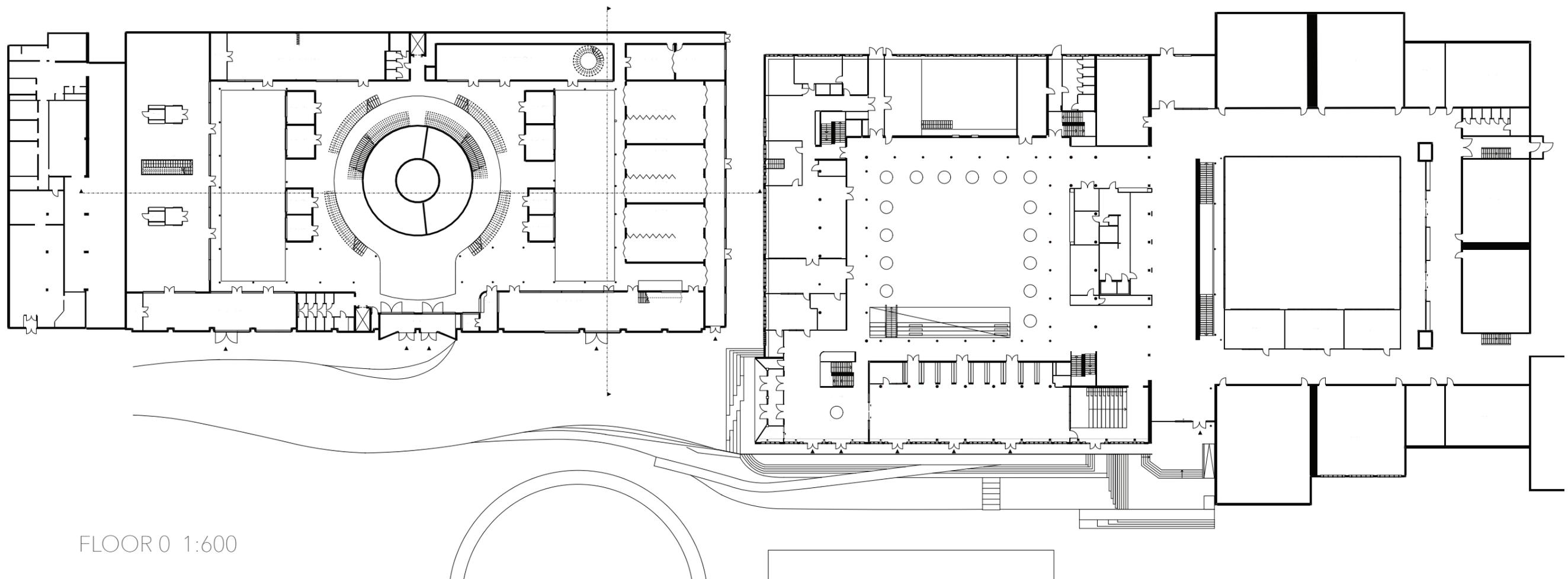
The logic of our design is to find inspiration, patterns, elements from the existing structures and make interventions from that. We open up the facade of the "Wavehouse", the openings are followed with the original composition of the facade of the building. The pattern of the division of glass are followed by the SB I's window pattern. The opening of the basement in SB I is followed by the composition of the upper floor, and also due to the load-bearing structure of the building.

# Floor plans

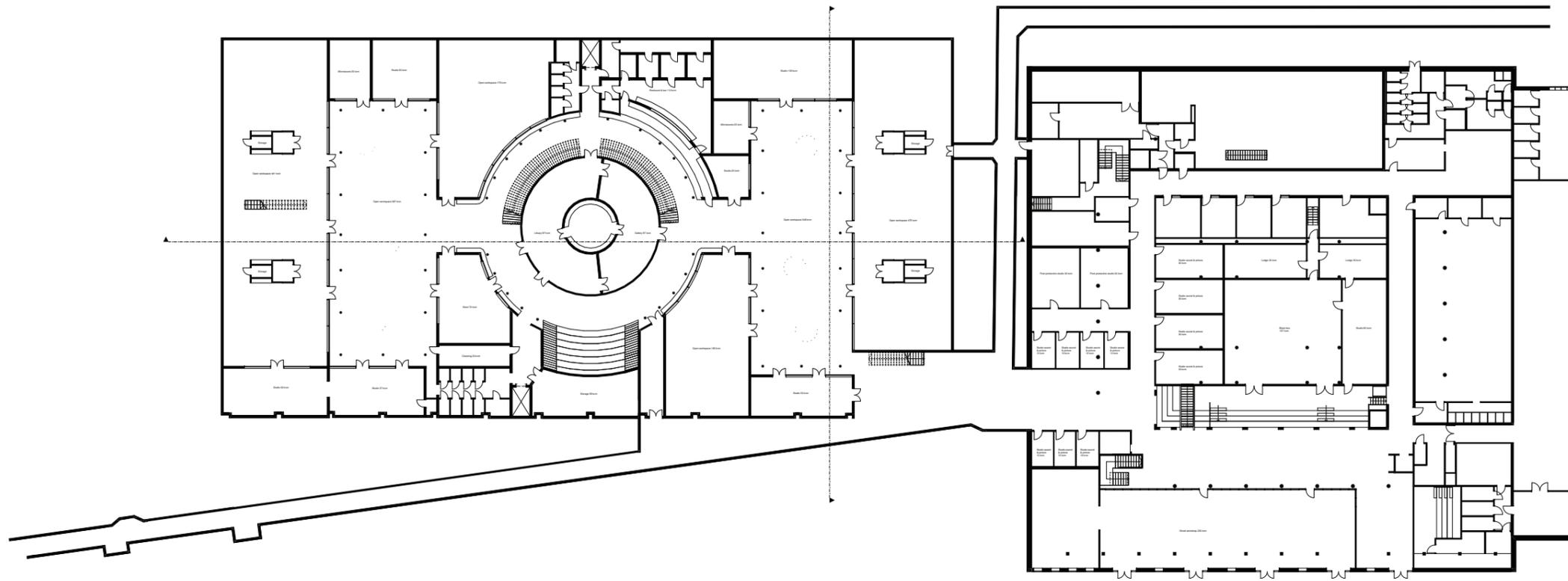
When you enter the "Wavehouse", you can follow the public stair to the "Pool", that today is used as a wave lab. Here the public functions are situated. You can find a library, a bar, a gallery and an art supply store. The new art school has the public space in the "Core" of the building, different workshops and workspaces with different level of openness are placed around the atriums. Similar structure can be found in the ACE-building. The outdoor space with a soft slope and organic curves connects these two buildings, we used the same design elements for the main entrances of the two buildings to echo the connection of the buildings.



PLAN FLOOR 1 1:600



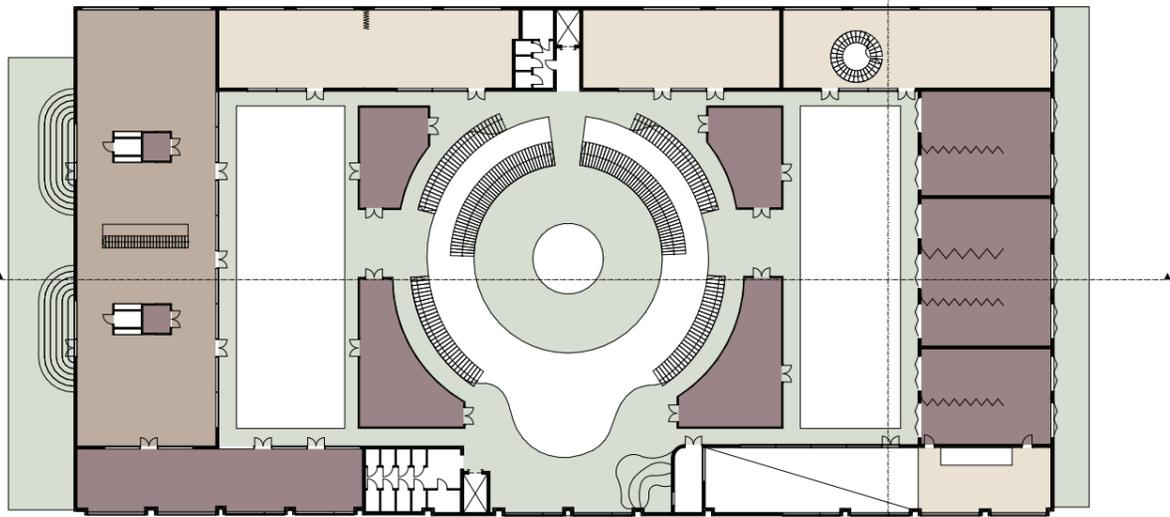
FLOOR 0 1:600



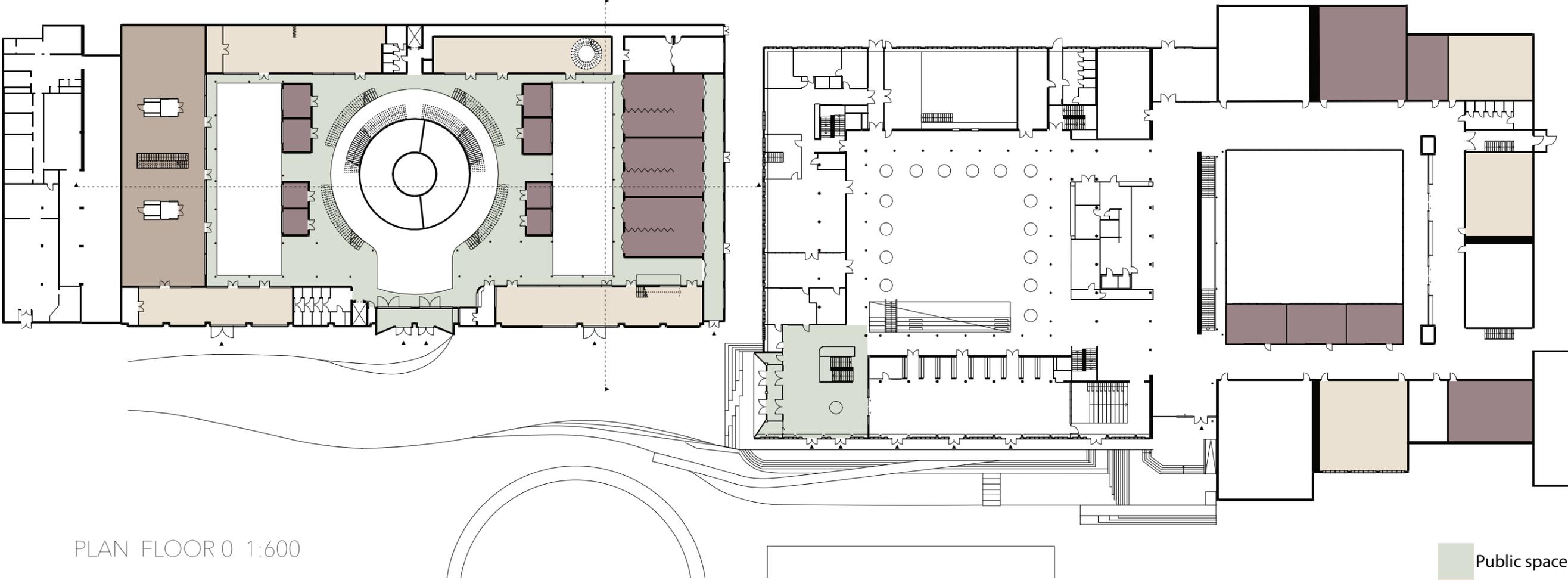
BASEMENT 1:600

Under the buildings there is an old escape tunnel running. We extend the use of the existing tunnel to connect the SBI and the "Wavehouse". It connects the public spaces in the both buildings and works for communication's as an exhibitions.

# Floor plans with functions

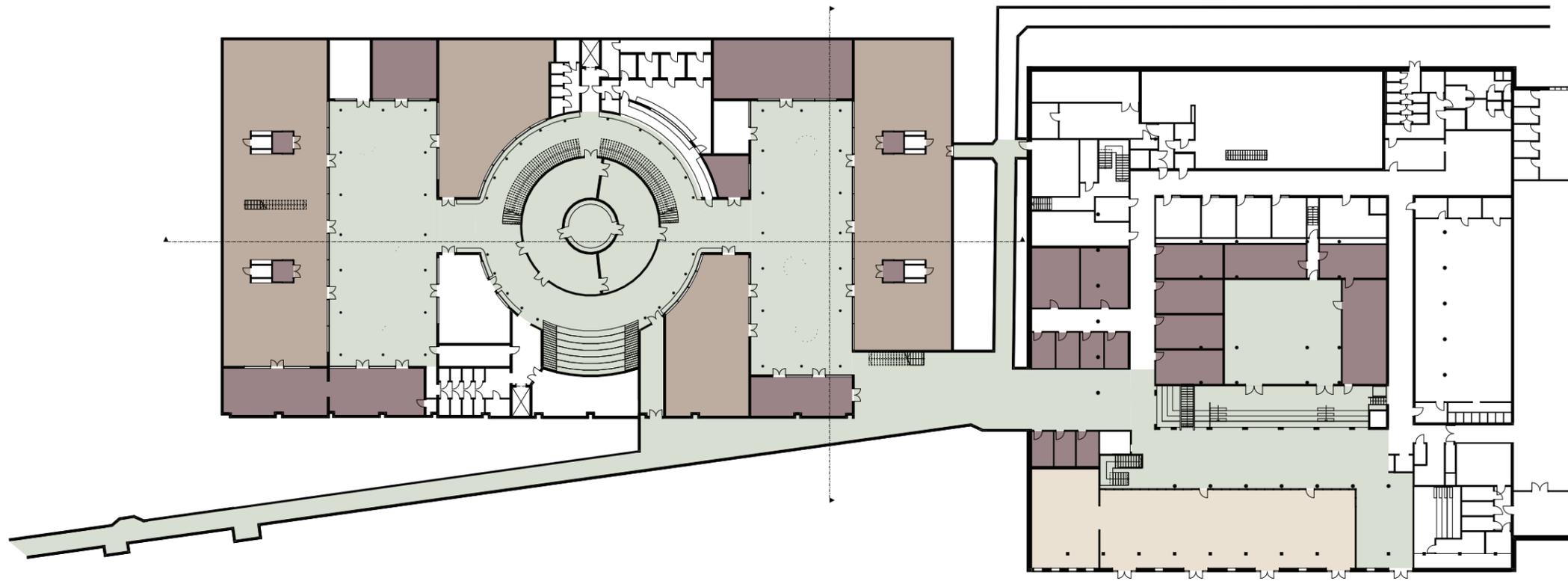


PLAN FLOOR 1 1:600



PLAN FLOOR 0 1:600

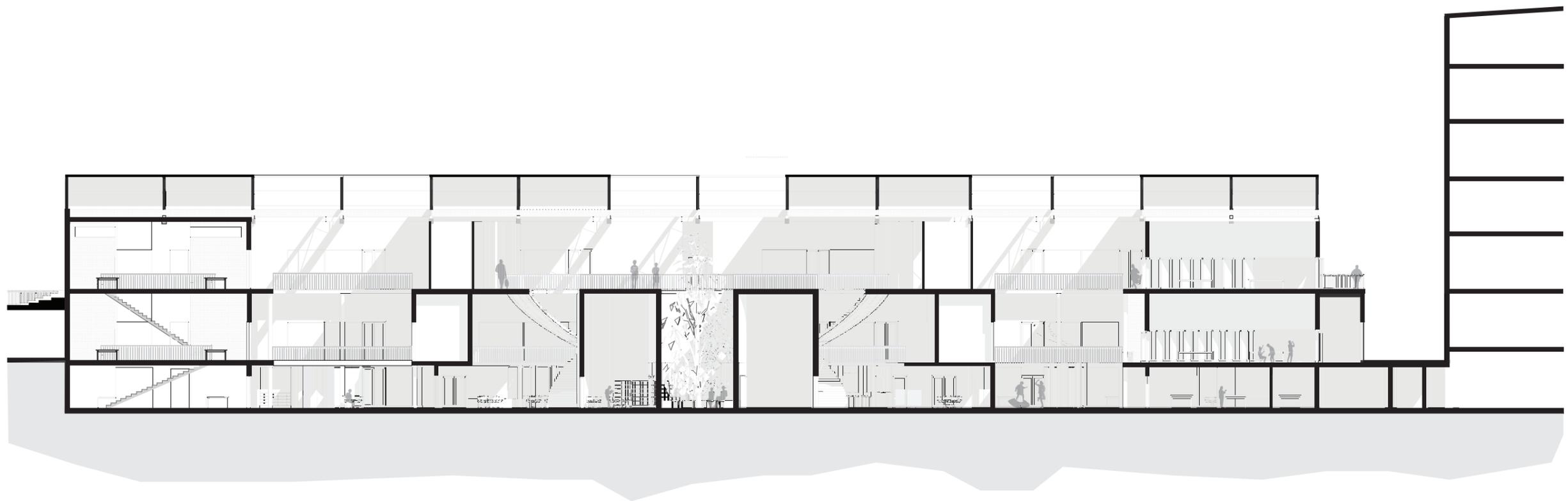
- Public space
- Workshops
- Open workspace
- Private workspace



BASEMENT 1:600

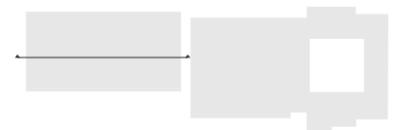
- Public space
- Workshops
- Open workspace
- Private workspace

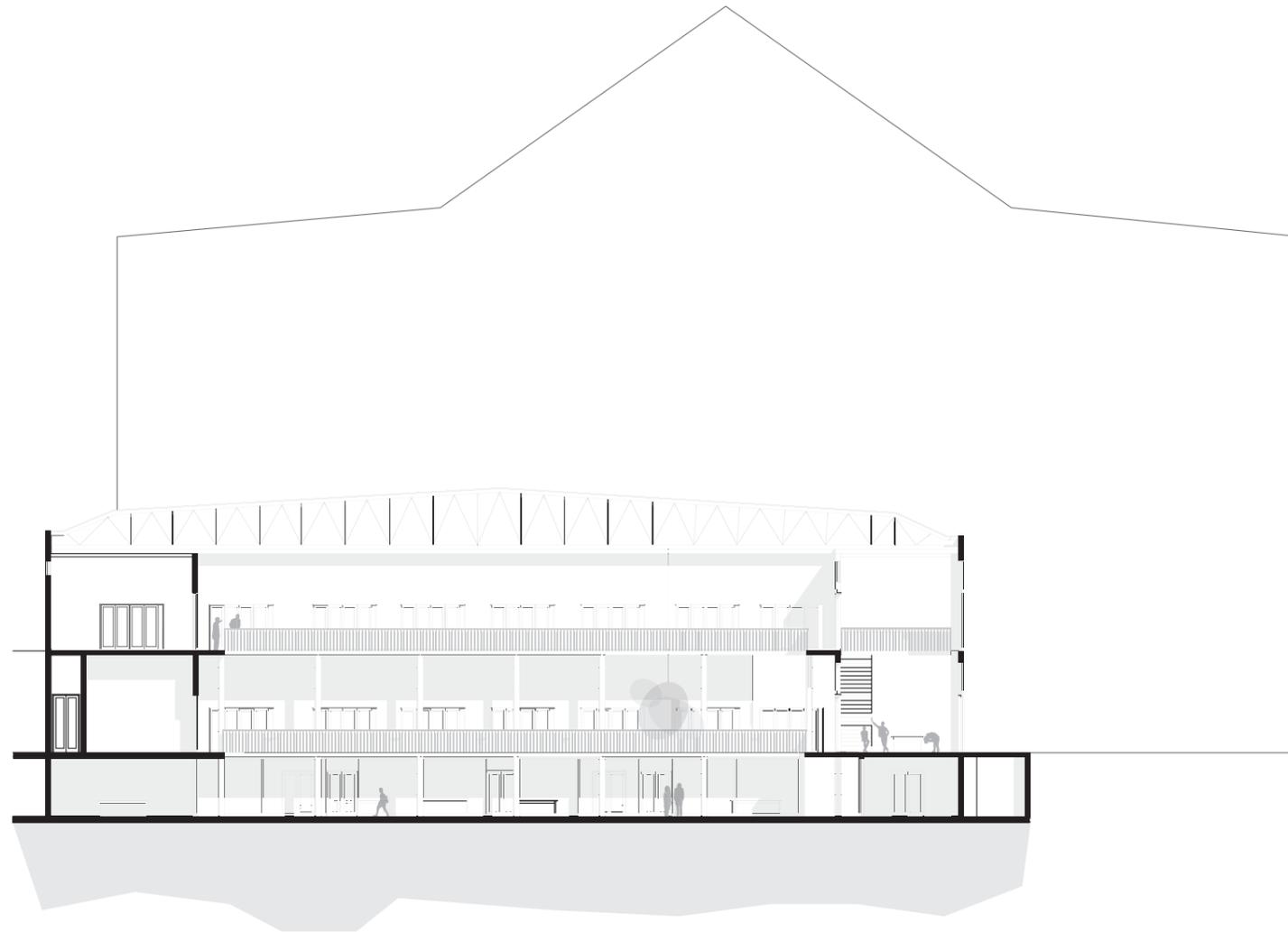
# Sections



SECTION A - A 1:300

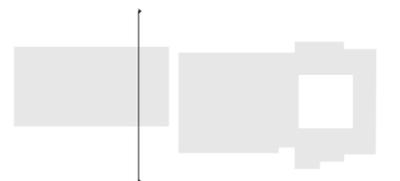
The functions of the building are surrounded by three atriums. The main idea is to let as much light in as possible through the big windows in the facade and the roof. The openness in the structure makes it easy to orient and take part of the ongoing work on the different levels in the building. The open working space on the left are connected with open stairs in the middle of the rooms, people can change ideas, communicate and move more freely in the building. The private work spaces to the right have access to either a outdoor balcony or a green room, where you can take a break and mingle with your friends.





SECTION B -B 1:300

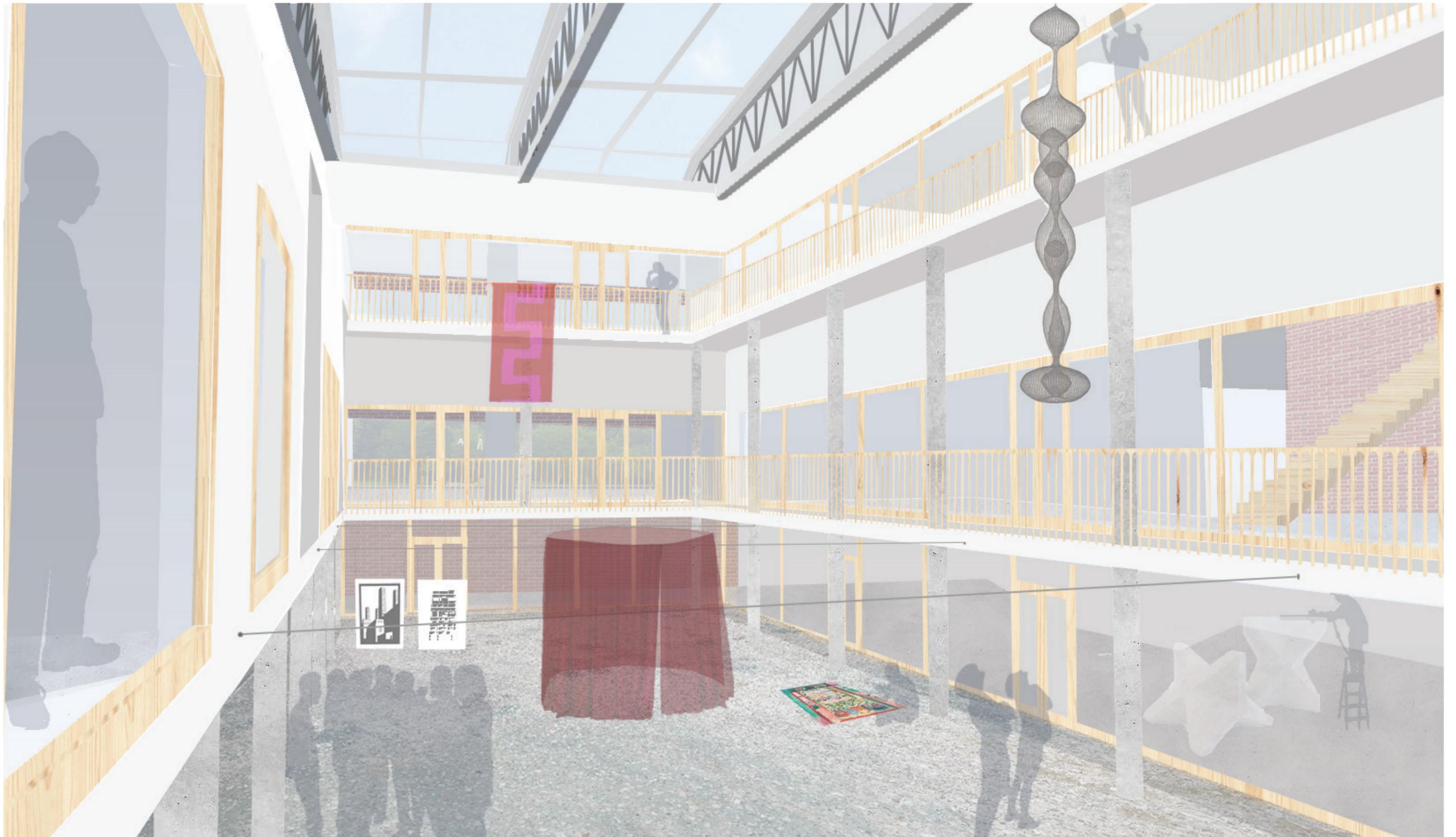
Here you can see the common area of one of the atriums. The indoor balcony around the space connect all three levels, so that people can easily orient and get inspiration from each other. The original construction of the building today is kept except the for new openings made for the windows and the new entrances.





This perspective shows the textile workshop. Most of the workshops are located along the facade facing the street where a lot of people walk. This will increase the visibility of the education and create interest for the different working methods used in the different fields. It also makes the facilities easy to access through separate entrances, making it possible for other civil organizations to run courses during nights and on weekends.





The open atriums are inspired by the atrium in the ACE-building. Here the students can work with their projects, exhibitions can be held and you can hang out with your friends. The balconies around make it easy to orient, in contrast to the situation in the ACE-building, and makes it easy to take a break from your work. The atrium can easily be divided to meet different needs.





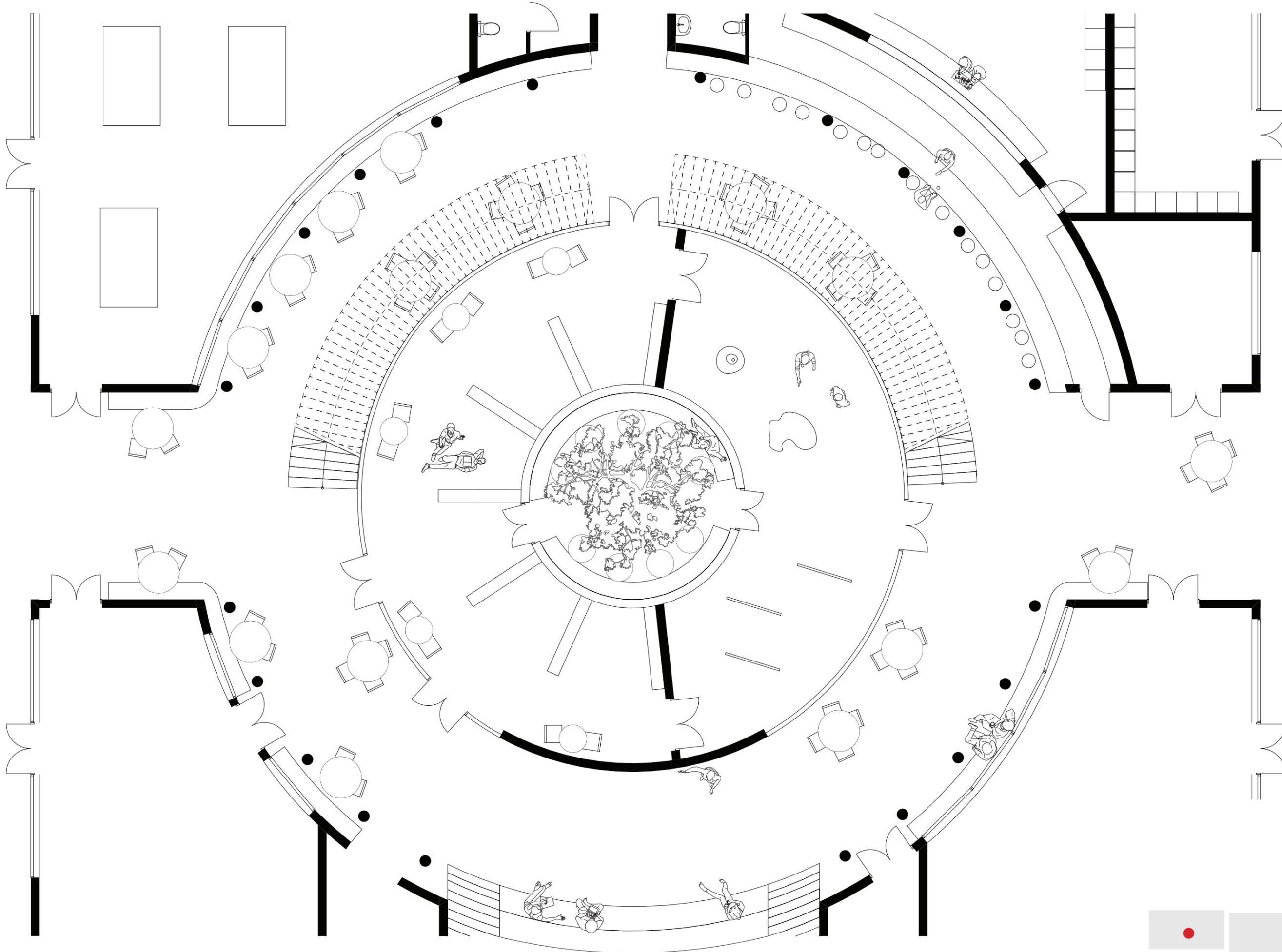
The studios are the most private workspaces in the school. Here students can work on their projects and come and leave as they please. The rooms are flexible and can be doubled in size making it possible for more students to work together, or to have company and finding inspiration from each other. The rooms can also be used for seminars or presentations. On both floors the studios have direct access to either a common 'green room' or a balcony.





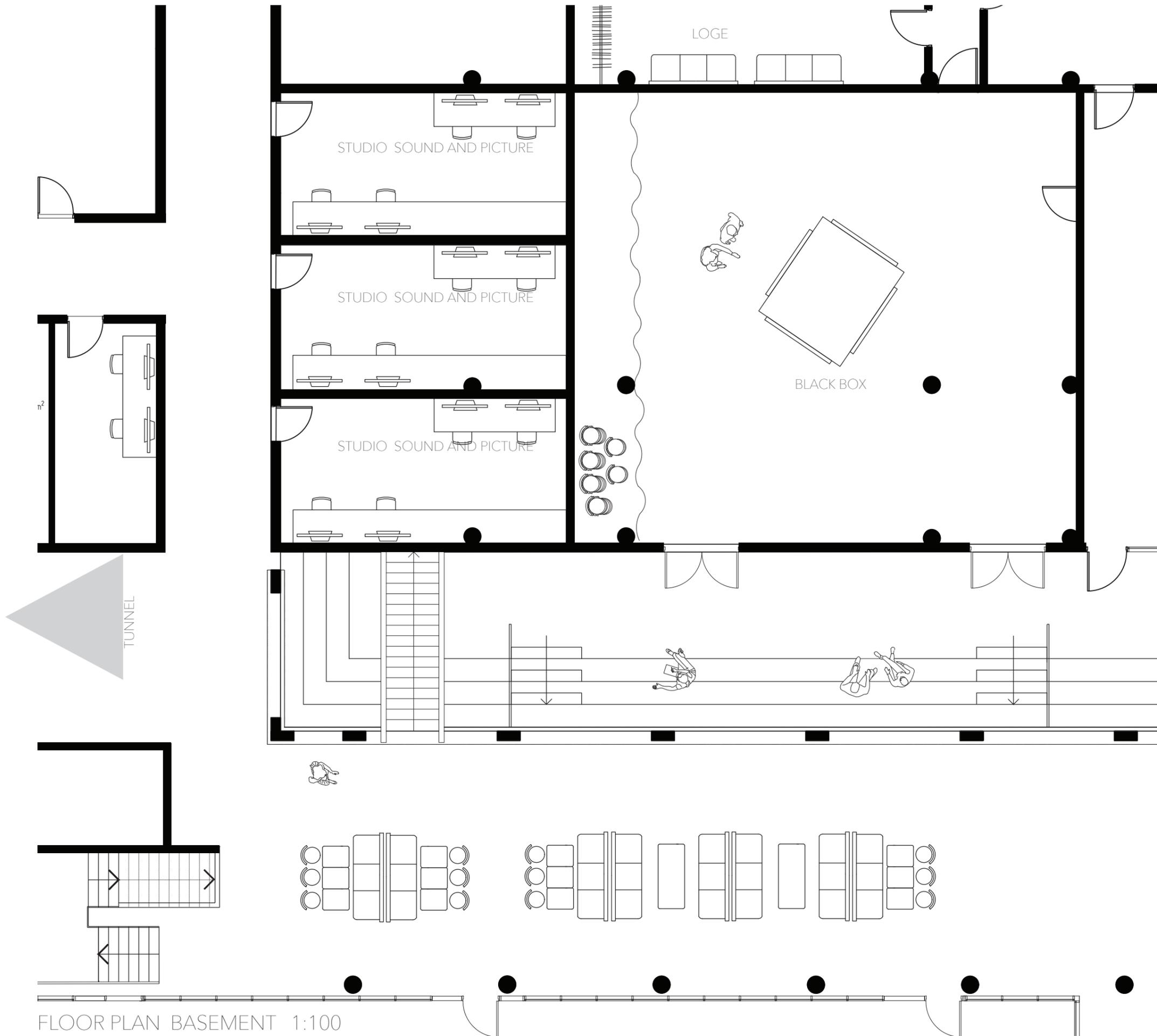
When you enter the building from the main entrance you are met by a big open space. In front of you there is a big staircase, not too unfamiliar to 'Kunskapstrappan' in the ACE-building, leading down to what we call the 'square'. This is the most public space in the building. Here open lectures and presentations are held, and people also hangout here during the lunch break. The round room in the middle is divided in two, one part being the school's library, and the other being a gallery where the different exhibitions are running. In the middle of these two rooms there is a room for contemplation, with benches around a tree that have been moved here when redesigning the outdoor area. Apart from this the 'square' also contains a restaurant and bar.





FLOOR PLAN BASEMENT 1:100





FLOOR PLAN BASEMENT 1:100

How the built environment can help the students to inspire and learn from each other has been one of the crucial parts in our project. Another one has been to have a sustainable approach, by using spaces that are not used efficiently today, rather than adding new buildings.

Therefore, we have transformed some of the spaces that are in the ACE-building today to match them with functions that are needed in the program for HDK/Valand. These new functions, like the Black Box you see in this zoomed in floor plan of the basement, can also be used by the architecture students. The idea is that the education should not have to be as conformative as it is today, but rather that you can pick your courses from a broader spectrum of disciplines. This would make the education both broader in the sense that you have more topics to pick from, but it would also make it more specialized, because you can choose to focus on certain topics throughout your education.

On the corner the two buildings meet. By using the existing tunnel that runs all the way to the union house, and opening up in some spaces, we make sure that the buildings feel strongly connected and that they are easily accessible whether you come from the ACE-building going to the Wave-house, or the other way around.





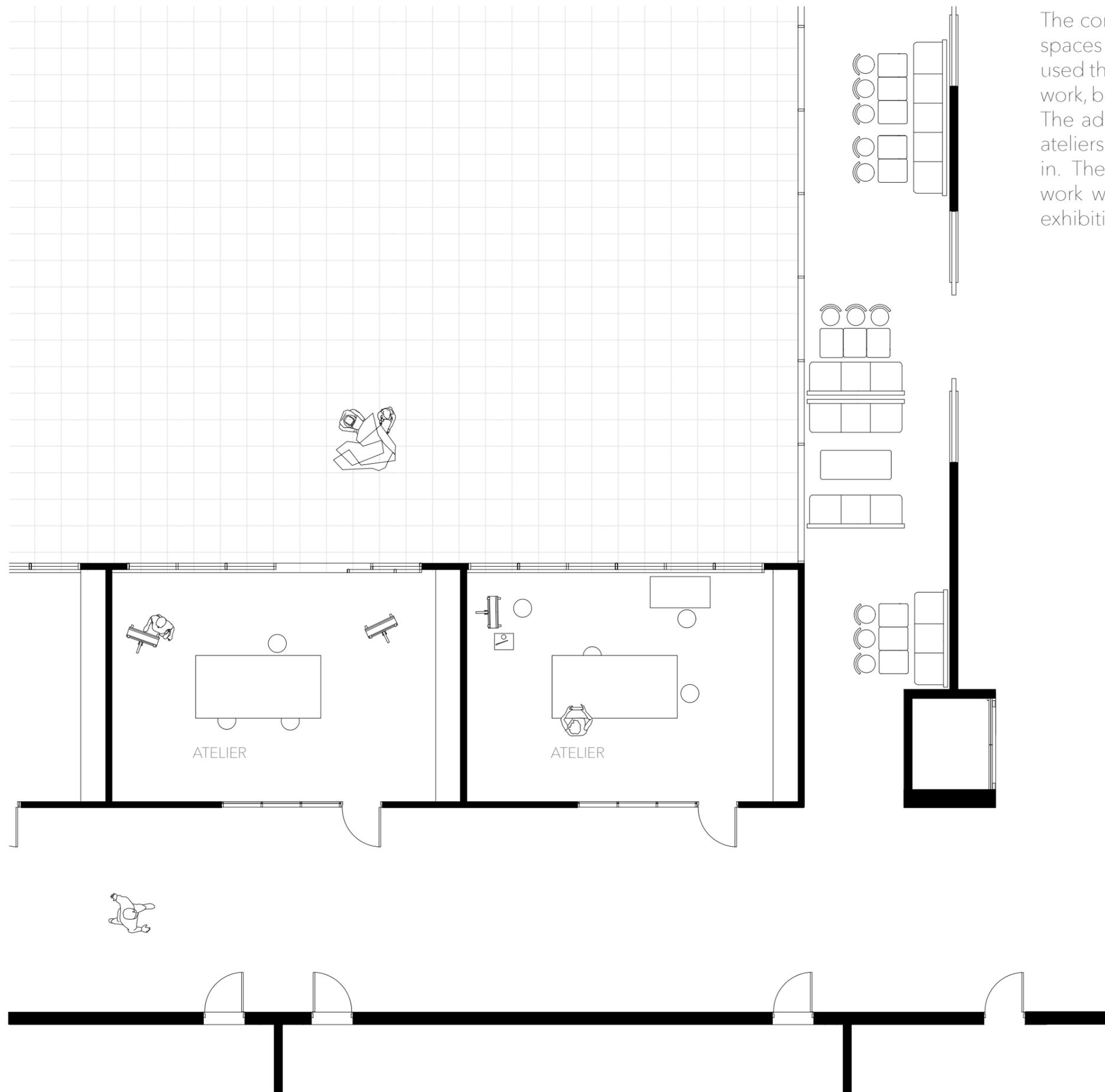
The situation of today with the ongoing pandemic made us think about what the future might look like. And we believe that the education will continue to be held partly digitally. Lectures and seminars are events that have been worked out well and actually open up new possibilities, even though we miss meeting our classmates. Guest lecturers from all over the world can be invited and it is also possible to take part of seminars and lectures all over the world.

Therefore, have we decided to transform five out of eight lecture halls into workshops and open workspace in the SB2 building. Practical work in workshops and ateliers has been more negatively affected during the pandemic but this kind of function is also in more need of space because of the practical work in all type of sizes. Thanks to the height of the existing lecture halls, it is possible to make two floor levels and use the dark space under the second floor for storage. The lower floor gets double height and allows for larger sculpture and art works. Placing parts of the new art school in the ACE-building will increase the opportunities for interdisciplinary collaborations.



SECTION 1:100





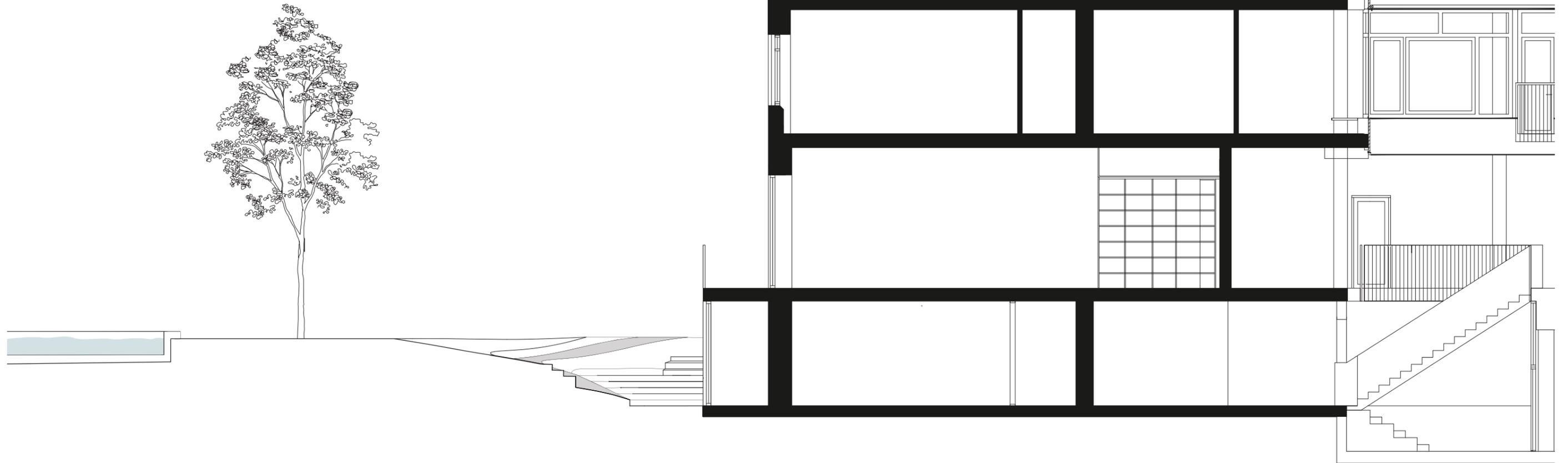
The corridors and V-yard are unused spaces today. In our project we have used these spaces for the students to work, both individually and in groups. The added rooms in the V-yard are ateliers with a lot of light coming in. The yard itself can be used to work with big projects and to have exhibitions at.

FLOOR PLAN SB2 1:100



The dig in front of the ACE-building and additions of stairs and a slope will make not only the basement but the whole building more accessible. It will also let more light in and make the dark space in the basement more pleasant and easier to use. The space will be used as an extension of the already existing wood workshop, making this function more visible for people passing by.

We extend the basement with 1,5 meters to create a balcony that makes the indoor and outdoor blend better together. This sunny spot can be used for breaks and outdoor studying or just grab a sip of air.



SECTION 1:100



## Thanks to artist from HDK-Valand providing inspirational work in our perspectives

Linnea Andersson	3, 20, 30, 38
Anja Fredell	28
Victor Nilsson	29
Fredrika Holmberg	29
Malinn Daengtakote Petersén	34
Yun-Chih Chen	34
Johannes Postlmayr	34
Oskar Kardemark	34
Lisa Sterner	34
Charlotta Hammar	34

# Reflection

This has been a long journey. Not a linear one. We have tried out many ideas and was in the trying out-phase for a long time. However, the core of the project have been from the very beginning to **open up**, and we believe that we have stuck to it throughout the process. We have tried different ways to reach our vision, and in the end we think that the result reflects our vision in a good way. The tools to reach our vision have been the addition of the arts school and the transformation of the ACE-building and the surrounding site.

The project we have taken on is huge, and to be comprehensive it would need years to complete. If we were to do the project again, maybe we would focus more on one part to go more into detail. But then it would have been a completely different project. Overall, we are satisfied with our work.